ADA American Dental Association

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# Supplement 4

## Dental School Attrition

Supplement 4 to the
Annual Report 88/89
Dental Education

Council on Dental Education

DENTAL REPORTS PUBLISHED BY THE DIVISION OF EDUCATIONAL MEASUREMENTS

The Division of Educational Measurements publishes the Annual Report on Dental Education and supplemental reports on various aspects of dental education yearly. These reports have been listed below according to a revised number system established last year. As each report is produced, the roster below will appear on the report's inside cover identifying with an "X" those reports which are available. It should be noted that the "Confidential" reports include information which was collected by the Division with the understanding that the resultant reports would not identify specific educational institutions. In this regard, these reports use randomly assigned code numbers for each predoctoral program rather than the name of the institution with the initial distribution of these reports limited to dental schools.

| Currently Available | | 1986 Designation |
|---|---|---|
| X | Annual Report on Dental Education | - |
| X | Supplement 1: Dental School Admission Information | 7 |
| X | Supplement 2: Trend Analysis | 11 |
| X | Supplement 3: Dental School Tuition | 13 |
| X | Supplement 4: Dental School Attrition | 5 |
| | Supplement 5: Dental School Faculty | 10 |
| | Supplement 6: Financial Report | 4 |

CONFIDENTIAL REPORTS

| | | |
|---|---|---|
| Supplement 7: | Analysis of Dental School Finances | - |
| Supplement 8: | Dental School Curriculum, Clock Hours of Instruction Summary Report | 14 |
| Supplement 9: | Dental School Curriculum, Clock Hours of Instruction Basic Sciences | 15 |
| Supplement 10: | Dental School Curriculum, Clock Hours of Instruction Clinical Sciences | 16 |
| Supplement 11: | Dental School Curriculum, Clock Hours of Instruction Behavioral Sciences | 17 |

## TABLE OF CONTENTS


| Section | | Page |
|---|---|---|
| I. | Introduction | 1 |
| II. | Personal Reasons for Attrition | 3 |
| III. | Academic Reasons for Attrition | 4 |
| IV. | Minority Attrition | 6 |
| V. | Conclusion | 7 |


## LIST OF TABLES


| Table | | |
|---|---|---|
| 1. | Dental School Freshman Withdrawal/Attrition, 1978-79 to 1987-88 | 2 |
| 2. | Dental School Total Enrollment Withdrawal/Attrition, 1987-88 | 2 |
| 3. | General Reasons for Freshman Withdrawal, 1983-84 to 1987-88 | 3 |
| 4. | General Reasons for Withdrawal, 1987-88 | 4 |
| 5. | Sex Differences: Withdrawals by Sex, 1987-88 | 6 |
| 6. | Freshmen Withdrawals: Ethnic Minorities, 1987-88 | 6 |
| 7. | General Reasons for Withdrawals: Ethnic Minorities, Freshmen, Sophomores, and Juniors, 1987-88 | 7 |


## List of Figures


| Figure | | |
|---|---|---|
| 1. | DAT Science Composite Scores vs. Freshman Withdrawals, 1987-88 | 5 |
| 2. | DAT Academic Averages vs. Freshman Withdrawals, 1987-88 | 5 |

# I. Introduction

The Division of Educational Measurements annually gathers student withdrawal and attrition data from United States dental schools by means of the Survey of Predoctoral Dental Educational Institutions as well as through withdrawal forms submitted for each student who withdraws from school. A computer system is used by the Division of Educational Measurements to maintain data regarding enrollment figures as supplied by dental schools in the United States. The computer system (DEMS) permits the Division to prepare class and graduate rosters for each dental school as a part of the annual survey instrument. The DEMS system, initiated with the 1986-87 academic year, became fully operational in managing the 1987-88 enrollment and graduate listings.

The DEMS system affords the Division the opportunity to track individuals who withdraw from dental school, transfer to another institution, repeat academic years, or suspend their studies. With this capability, the Division's supplemental report, Dental Student Attrition can provide a more detailed analysis of the students withdrawing from the dental school where they initiated their predoctoral education program. In this regard, the analysis which follows provides information and projections which are based on the second enrolling class to be fully entered on the DEMS system.

In preparing Supplement 4: Dental Student Attrition, every effort was made to assure that comparisons could be drawn to earlier editions of the report. However, to clarify any findings which can be drawn from the report, the following definitions should be understood:

WITHDRAWALS: Identifies students who withdrew from the class at the dental school where they initiated their predoctoral education program.

ATTRITION: Reports the number of students who are not currently enrolled in a predoctoral dental education program.

REPEATERS: Indicates the total number of students repeating an academic year. This figure includes students enrolled at either the initial school of enrollment or the school to which they transferred.

TRANSFERS: Identifies the number of predoctoral students who have transferred to a different dental school to continue their predoctoral program. These students DO NOT include repeating students.

As indicated in Table 1, the number of students withdrawing from the class and school in which they initiated their predoctoral program increased yearly between 1978-79 and 1985-86. Statistics for the 1986-87 and 1987-88 academic year freshman classes show a change in this trend.

The number of students withdrawing from the 1987-88 first-year class was 289 or 6.61% of the total first-year enrollment. This figure represents a 27 or 8.5% reduction from the number reported for the 1986-87 first-year class. The number of students withdrawing during the 1987-88 academic year is the lowest reported figure for the past seven years.

Table 1
Dental School Freshman Withdrawal/Attrition, 1978-79 to 1987-88

| Academic Year | 1st-Year Enrollment | Total 1st-Year Withdrawals # | % | Confirmed Attrition # | % | Total Repeaters # | % | Total Transfers # | % |
|---|---|---|---|---|---|---|---|---|---|
| 1978-79 | 6,301 | 230 | 3.65 | | | | | | |
| 1979-80 | 6,132 | 216 | 3.52 | | | | | | |
| 1980-81 | 6,030 | 259 | 4.30 | | | | | | |
| 1981-82 | 5,855 | 290 | 4.95 | | | | | | |
| 1982-83 | 5,498 | 306 | 5.57 | | | | | | |
| 1983-84 | 5,274 | 357 | 6.77 | | | | | | |
| 1984-85 | 4,937 | 357 | 7.23 | | | | | | |
| 1985-86 | 4,843 | 399 | 8.24 | | | | | | |
| 1986-87 | 4,554 | 316 | 6.94 | 226 | 4.96 | 67 | 1.47 | 23 | 0.51 |
| 1987-88 | 4,370 | 289 | 6.61 | 212 | 4.85 | 66 | 1.51 | 11 | 0.25 |

The computer program developed to assess freshman withdrawal/attrition was applied to the remaining 1987-88 academic classes; Table 2 shows the results of that analysis.

Table 2
Dental School Total Enrollment Withdrawal/Attrition, 1987-88

| Academic Year | Total Enrollment | Total Withdrawals # | % | Confirmed Attrition # | % | Total Repeaters # | % | Total Transfers # | % |
|---|---|---|---|---|---|---|---|---|---|
| 1st Year | 4,370 | 289 | 6.61 | 212 | 4.85 | 66 | 1.51 | 11 | 0.25 |
| 2nd Year | 4,324 | 130 | 3.01 | 96 | 2.22 | 21 | 0.49 | 13 | 0.30 |
| 3rd Year | 4,351 | 64 | 1.47 | 37 | 0.85 | 17 | 0.39 | 10 | 0.23 |
| 4th Year | 4,827 | 27 | 0.56 | 13 | 0.27 | 14 | 0.29 | 0 | -- |

Applying the percentage of withdrawals, attritions, repeaters and transfers experienced by all academic classes in 1987-88 to the freshman class; the 1987-88 class would experience, at the conclusion of their predoctoral program, 492 (11.26%) withdrawals. These withdrawals are projected to include: 32 (0.73%) students transferring; 112 (2.56%) repeating students and 348 students leaving dental education for an actual attrition rate of 7.96%.

The number of first-year withdrawals that occurred in private and private-state related schools was lower when compared to public schools. Private and private-state related schools experienced 122 withdrawals while 167 students withdrew from public schools. The majority of freshmen who withdrew did so voluntarily (68.2%). More than one-half (59.9%) of all freshmen withdrawals were in good academic standing when they withdrew.

## II. Personal Reasons for Withdrawal

Personal reasons for withdrawal, as in previous years, outnumbered academic reasons (Table 3), while change of career objective and transfer to other dental school remain as two of the major personal reasons for withdrawal (Table 4). As reported by the dental schools, most of the students who withdrew for personal reasons were in good academic standing and had no reported difficulty with coursework.

During the 1987-88 year, 10 students left dental school explicitly to enter a medical school and 53 students left a particular dental school to transfer to another dental school. Financial reasons were given for the withdrawal of six students, two freshmen, two sophomores, one junior, and one senior.

Table 3
General Reasons for Freshman Withdrawal, 1983-84 to 1987-88

| General Reasons | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 |
|---|---|---|---|---|---|
| Withdrawls for Personal Reasons | 57.9% | 46.8% | 52.8% | 53.2% | 53.3% |
| Withdrawls for Academic Reasons | 42.1% | 53.2% | 47.2% | 38.0% | 39.1% |
| Problems in Didactic Courses Only | 21.7% | 33.3% | 28.3% | 25.9% | 31.1% |
| Problems in Technic Courses Only | 4.2% | 4.2% | 3.8% | 1.9% | 3.1% |
| Problems in Didactic & Technic | 16.2% | 15.6% | 15.0% | 10.1% | 4.8% |

Table 4
General Reasons* for Withdrawal, 1987-88

| General Reason | Freshman | Sophomore | Junior | Senior | Total |
|---|---|---|---|---|---|
| **Personal Reasons** | | | | | |
| Change of Career Objective | 80 | 22 | 6 | 0 | 108 |
| Other General Reasons | 28 | 17 | 2 | 7 | 54 |
| Transfer to Other Dental School | 23 | 18 | 12 | 0 | 53 |
| Financial Problems | 2 | 2 | 1 | 1 | 6 |
| Family Problems | 8 | 4 | 3 | 1 | 16 |
| Poor Health | 5 | 2 | 3 | 1 | 11 |
| Lack of Interest | 5 | 0 | 0 | 0 | 5 |
| Enter Medical School | 0 | 7 | 3 | 0 | 10 |
| Emotional Problems | 1 | 1 | 1 | 0 | 3 |
| Disciplinary Suspension | 2 | 0 | 0 | 0 | 2 |
| **Academic Reasons** | | | | | |
| Problems in Didactic Courses Only | 90 | 22 | 1 | 0 | 113 |
| Problems in Technic Courses Only | 9 | 5 | 0 | 1 | 15 |
| Problems in Didactic and Technic | 14 | 19 | 15 | 2 | 50 |
| Problems in Clinic | 0 | 0 | 9 | 5 | 14 |
| **Leave of Absence** | | | | | |
| Indefinite Leave | 16 | 9 | 4 | 8 | 37 |
| Definite Leave | 6 | 2 | 4 | 1 | 13 |

*Reasons for withdrawal are sometimes not specified.

## III. Academic Reasons for Withdrawal

In annual studies of dental freshman withdrawal, the DAT scores of students withdrawing because of academic problems were compared with the DAT scores of all freshmen. Since 1975, when this analysis was initiated, the studies have indicated that the percentage of withdrawing students with below average DAT scores was significantly greater than the percentage of all freshmen with below average DAT scores. This year again, there is a significant difference in the DAT scores of those who withdrew because of scholastic difficulty and those individuals withdrawing for personal reasons when compared with the average for all incoming freshmen. The DAT academic average for the 1987-88 first-year class was 4.22. The mean academic score for individuals withdrawing due to scholastic diffficulties was 3.61 while the mean score for students withdrawing for personal reasons was 3.94. The mean DAT science composite score for the entering 1987-88 class was 4.30. The mean science composite score for students withdrawing as a result of didactic problems was 3.39 while individuals leaving dental school for personal reasons had an average

**of 4.02. Figures 1 and 2 graphically portray these differences. A study of students withdrawing from their predoctoral studies as a result of problems in technic course was not done due to the minimal number of individuals in this category (9).**

FIGURE 1
DAT SCIENCE COMPOSITE SCORES VS.
FRESHMAN WITHDRAWALS
1987-88

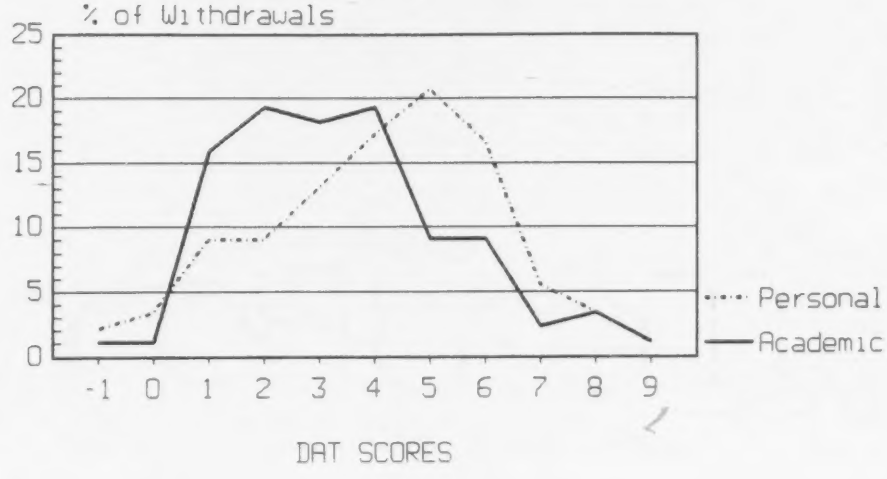
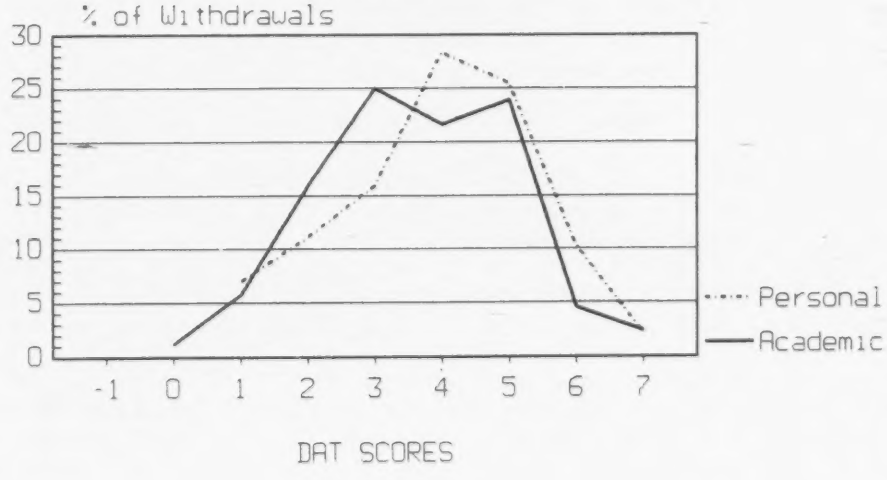



FIGURE 2
DAT ACADEMIC AVERAGES VS.
FRESHMAN WITHDRAWALS
1987-88



## IV. Minority Withdrawals

In 1987, women constituted 32.3% of the first-year class in United States dental schools and 29.4% of the total predoctoral dental school enrollment. Women made up 31.5% of the first-year withdrawals and 28.8% of the withdrawals from all four years. As can be seen from Table 5, the withdrawal rate for women in dental school was slightly lower than for men in 1987-88.

Table 5
Sex Differences: Withdrawals by Sex, 1987-88

| | Freshman | | Sophomore | | Junior | | Senior | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sex | N | %* | N | %* | N | %* | N | %* | N | %* |
| Male | 198 | 6.69 | 95 | 3.17 | 50 | 1.58 | 20 | 0.57 | 363 | 2.87 |
| Female | 91 | 6.45 | 35 | 2.64 | 14 | 1.17 | 7 | 0.53 | 147 | 2.80 |

*The precent of both class and total enrollments.

An analysis of student withdrawal rates by ethnic categories indicates that the percentage of minority students withdrawing from dental school is greater that the percentage of ethnic minorities comprising the 1987-88 freshman class. Table 6 demonstrates the increased percentages of ethnic minorities when comparing enrollment and withdrawal statistics.

Table 6
Freshman Withdrawals: Ethnic Minorities, 1987-88

| Race | 1st Year Enrollment | Percentage of Total Enrollment | Number of Withdrawals | Percentage of Total Withdrawals |
|---|---|---|---|---|
| Asian/Pacific Islander | 636 | 14.55 | 45 | 15.57 |
| Black | 280 | 6.41 | 27 | 9.34 |
| Hispanic | 358 | 8.19 | 26 | 9.00 |
| Native American | 20 | 0.46 | 1 | 0.35 |
| White | 3,076 | 70.39 | 166 | 57.44 |
| Unknown | | | 24 | 8.30 |
| Total | 4,370 | | 289 | |

Table 7 indicates the number and percentage of withdrawals due to personal and scholastic reasons according to ethnic category for 1987-88. The table provides information for the freshman, sophomore, and junior classes. It should be noted that neither applicants participating in the DAT nor students enrolled in predoctoral programs are required to respond to questions regarding ethnicity. In this regard, the number of individuals not responding to the question are excluded from the table.

Table 7
General Reasons for Withdrawals:
Ethnic Minorities, Freshmen, Sophomores, and Juniors, 1987-88

| Race/ Year | Total Number Withdrawn | Personal N | Personal % | Scholastic N | Scholastic % |
|---|---|---|---|---|---|
| Asian/Pacific Islander | | | | | |
| Freshmen | 45 | 24 | 53.33 | 21 | 46.67 |
| Sophomores | 8 | 6 | 75.00 | 2 | 25.00 |
| Juniors | 5 | 1 | 20.00 | 4 | 80.00 |
| Black | | | | | |
| Freshmen | 27 | 9 | 33.33 | 18 | 66.67 |
| Sophomores | 16 | 8 | 50.00 | 8 | 50.00 |
| Juniors | 2 | 2 | 100.00 | 0 | - |
| Hispanic | | | | | |
| Freshmen | 26 | 15 | 57.69 | 11 | 42.31 |
| Sophomores | 9 | 7 | 77.78 | 2 | 22.22 |
| Juniors | 7 | 4 | 57.14 | 3 | 42.86 |
| Native American | | | | | |
| Freshmen | 1 | 1 | 100.00 | 0 | - |
| Sophomores | 0 | 0 | - | 0 | - |
| Juniors | 0 | 0 | - | 0 | - |
| White | | | | | |
| Freshmen | 166 | 103 | 62.05 | 63 | 37.95 |
| Sophomores | 85 | 52 | 61.18 | 33 | 38.82 |
| Juniors | 45 | 25 | 55.56 | 20 | 44.44 |

## V. Conclusion

The DEMS computer system allowed the Division to revise its approach to reporting student withdrawals and attrition. Further, Supplement 4: Dental School Attrition reports the lowest withdrawal/attrition statistics for the past seven years, reversing the previous trends.

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